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L6: Entry 2 of 15   File: JPAB   Jan 16, 1998

DOCUMENT-IDENTIFIER: JP 10010308 A
TITLE: HOLOGRAM, CONDENSING OPTICAL SYSTEM FORMED BY USING HOLOGRAM AS WELL AS
OPTICAL HEAD DEVICE OPTICAL DISK DEVICE HAVING THIS CONDENSING OPTICAL SYSTEM

Abstract Text (1):
PROBLEM TO BE SOLVED: To decrease the light quantity of the light quantity of
unnecessary diffracted light by setting the diffraction efficiency of zero order
diffracted light and +1st order diffracted light higher than the diffraction
efficiency of the diffracted light of any other order and specifying the respective
values of the diffraction efficiency.

Abstract Text (2):
SOLUTION: A hologram lens 107 is so designed that the diffraction efficiency of its
+1st order diffracted light 64 is <100% and that the lens has sufficient strength
even to the zero order diffracted light (transmitted light) 61 of a light beam 3.
This zero order diffracted light 61 is condensed to the position of the recording
surface 38a of an information recording medium 51 having a small substrate
thickness t2 by an objective lens 4. The +1st order diffracted light 64 is
condensed to the position of the recording surface 38b of an information recording
medium 5 having a large substrate thickness t1. In such a case, the diffraction
efficiency of the zero order diffracted light 61 and the -1st order diffracted
light 64 is higher than the diffraction efficiency of the diffracted light of any
other order and the values of the diffraction efficiency of the zero order
diffracted light 61 and the 1st order diffracted light 64 are both $\geq 30\%$. The
diffraction efficiency of one of the +2nd order diffracted light and the -1st order
diffracted light is $\leq 2\%$.

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L7: Entry 1 of 1   File: JPAB   Apr 8, 1997

PUB-NO: JP409097448A
DOCUMENT-IDENTIFIER: JP 09097448 A
TITLE: OPTICAL PICKUP

PUBN-DATE: April 8, 1997

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INT-CL (IPC): G11 B 7/135; G02 B 5/18; G02 B 5/30

ABSTRACT:

PROBLEM TO BE SOLVED: To improve the reliability of tracking control by providing
two light sources and diffraction gratings corresponding to them and driving the
light sources independently of each other, and then making two light beams, which
are different in wavelength from each other, nearly equal in three-spot interval
and different in gradient.

SOLUTION: A 1st light source 11 emits a TM-mode light beam of 635nm and a 2nd light
source 12 emits a TE-mode light beam of 780nm. A 1st polarization-dependent three-
beam diffraction grating 171 provides a 3-beam diffracting function only for the
TM-mode light beam and the 2nd polarization- dependent 3-beam diffraction grating
172 provides a 3-beam diffracting function only for the TE-mode light beam. And,
the 1st light source 11 or 2nd light source 12 is driven selectively by
unillustrated driving selecting means.

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